

CLAIMS:

1. A process chamber comprising a lower wall and a side wall, wherein said side wall has a height of at most about four inches.
2. The process chamber according to Claim 1, wherein said process chamber is made of a single unit of plate stock having a thickness of about four inches.
3. The process chamber according to Claim 2, wherein said plate stock is aluminum.
4. The process chamber according to Claim 1, wherein said process chamber has at least one pumping port configured to receive a pumping cell.
5. The process chamber according to Claim 1, wherein said process chamber has a plurality of pumping ports each configured to receive a pumping cell.
6. The process chamber according to Claim 5, wherein said plurality of pumping ports are located on said lower wall of said process chamber adjacent to a process chamber volume.
7. The process chamber according to Claim 5, wherein three pumping ports are provided on said lower wall of said process chamber symmetrically spaced about a chuck assembly provided within said process chamber.
8. The process chamber according to Claim 1, further comprising means for reducing open volume within said process chamber.
9. The process chamber according to Claim 8, wherein said means for reducing open volume is a chamber liner configured to displace open volume within said process chamber.
10. A vacuum processing apparatus comprising:
 - a process chamber having a plurality of pumping ports; and
 - a plurality of pumping cells each connected to a respective pumping port of said plurality of pumping ports.

11. The vacuum processing apparatus according to Claim 9, wherein said process chamber comprises a lower wall and a side wall, the side wall having a height of at most about four inches.

12. The vacuum processing apparatus according to Claim 11, wherein said process chamber is made of a single unit of plate stock having a thickness of about four inches.

13. The vacuum processing apparatus according to Claim 12, wherein said plate stock is aluminum.

14. The vacuum processing apparatus according to Claim 11, wherein said plurality of pumping ports are located on the lower wall of said process chamber adjacent to a process chamber volume.

15. The vacuum processing apparatus according to Claim 11, wherein three pumping ports are provided on the lower wall of said process chamber symmetrically spaced about a chuck assembly provided within said process chamber.

16. The vacuum processing apparatus according to Claim 15, wherein three pumping cells are connected to said process chamber, each one of said three pumping cells being connected to a respective one of said three pumping ports.

17. The vacuum processing apparatus according to Claim 11, wherein two pumping ports are provided on the lower wall of said process chamber symmetrically spaced about a chuck assembly on opposing sides thereof.

18. The vacuum processing apparatus according to Claim 17, wherein two pumping cells are connected to said process chamber, each one of said two pumping cells being connected to a respective one of said two pumping ports.

19. The vacuum processing apparatus according to Claim 10, further comprising means for reducing open volume within said process chamber.

20. The vacuum processing apparatus according to Claim 19, wherein said means for reducing open volume comprises a chamber liner configured to displace open volume within said process chamber.

21. The vacuum processing apparatus according to Claim 10, wherein said process chamber facilitates the formation of plasma.

22. A method of making an improved process chamber, said method comprising the step of:

making the process chamber with a lower wall and a side wall, the side wall having a height of at most about four inches.

23. The method according to Claim 22, wherein the process chamber is made of a single unit of plate stock having a thickness of about four inches.

24. The method according to Claim 23, wherein the plate stock is aluminum.

25. The method according to Claim 22, further comprising the step of providing in the process chamber at least one pumping port configured to receive a pumping cell.

26. The method according to Claim 22, further comprising the step of providing in the process chamber a plurality of pumping ports each configured to receive a pumping cell.

27. The method according to Claim 26, further comprising the step of providing the plurality of pumping ports on the lower wall of the process chamber adjacent to a process chamber volume.

28. The method according to Claim 26, further comprising the steps of:

providing a chuck assembly in the process chamber; and

providing three pumping ports on the lower wall of the process chamber symmetrically spaced about the chuck assembly.

29. The method according to Claim 26, further comprising the steps of:

providing an upper electrode to facilitate the formation of plasma in the process chamber.

30. The method according to Claim 22, further comprising the step of providing in the process chamber a chamber liner configured to displace open volume within the process chamber.

31. A method of making an improved process chamber, said method comprising the steps of:

providing a plurality of pumping ports in the process chamber; and

connecting a respective pumping cell to each of the plurality of pumping ports.

32. The method according to Claim 31, further comprising the step of making the process chamber with a lower wall and a side wall, the side wall having a height of at most about four inches.

33. The method according to Claim 32, further comprising the step of making the process chamber of plate stock having a thickness of about four inches.

34. The method according to Claim 33, wherein the plate stock is aluminum.

35. The method according to Claim 32, further comprising the step of making the process chamber comprising a molding process.

36. The method according to Claim 32, wherein said lower wall is a plate and said side wall is a rolled cylinder, further comprising the step of making the process chamber comprising welding the lower wall to the side wall.

37. The method according to Claim 32, further comprising the step of providing the plurality of pumping ports on the lower wall of the process chamber adjacent to a process chamber volume.

38. The method according to Claim 32, further comprising the steps of:

providing a chuck assembly in the process chamber; and
providing three pumping ports on the lower wall of the process chamber
symmetrically spaced about the chuck assembly.

39. The method according to Claim 38, further comprising the step of connecting three pumping cells to the process chamber, wherein each one of the three pumping cells are connected to a respective one of the three pumping ports.

40. The method according to Claim 32, further comprising the steps of:
providing a chuck assembly in the process chamber; and
providing two pumping ports on the lower wall of the process chamber symmetrically spaced about the chuck assembly on opposing sides thereof.

41. The method according to Claim 40, further comprising the step of connecting two pumping cells to the process chamber, wherein each one of the two pumping cells are connected to a respective one of the two pumping ports.

42. The method according to Claim 31, further comprising the step of providing in the process chamber a chamber liner configured to displace open volume within the process chamber.

43. The method according to Claim 31, further comprising the steps of:
providing an upper electrode to facilitate the formation of plasma in the process chamber.